MATH 170
Precalculus College Algebra

Course description: Topics from advanced algebra to include real number properties, solutions of equations and inequalities, relations, functions, graphs, polynomial and rational functions, exponential and logarithmic functions, complex numbers, systems of equations, and the theory of equations. This course has been identified as a general education course.

Prerequisites: MATH 113, or Math Enhanced ACT score of at least 22, or permission of department head. Two years of high school algebra recommended.

Text: *Precalculus* by Michael Sullivan, 8th Edition, Prentice Hall.

Calculator: The *Casio 9750G Plus* will be used for classroom demonstrations. It is recommended that you check with the instructor before using a calculator other than the *Casio 9750G Plus* for this class. Some testing will be conducted without the use of the calculator.

For details about **your** instructor's contact information, office hours, and policies, go to http://www.faculty.mcneese.edu/ and access your instructor's website.

Math 170 has been designated as a Writing-Enriched Course. 20% of the course grade will be based on demonstration of writing competency.

General Education Competency

The General Education Competency assessed in this course:

- To understand numerical data and statistics
- To reason abstractly and think critically

Student Learning Outcomes

The student will be able to:

- demonstrate computational skills necessary for problem solving and mathematical modeling;
- create, interpret, and revise models to solve problems;
- collect, organize, and interpret numerical data in various forms;
- analyze information given in order to draw conclusions and solve problems;
- demonstrate knowledge and skills specific to course content as outlined in the objectives listed below.

Objectives

The student will be able to

- demonstrate an understanding of concepts associated with functions including graphing,

evaluation, and operations with functions;

- find the zeros, graph and analyze properties of specific functions including polynomial, rational, exponential and logarithmic functions;
- solve equations involving polynomial, rational, exponential and logarithmic expressions;
- use knowledge of specific functions to solve applied problems;
- solve linear and nonlinear systems of equations with applications.

Course material

Course material will include the following topics:

TOPIC	CHPT.	SECTIONS	APPROX. TIME
Graphs	Ch. 1	2, 3, 4	~ 0.5 week
Functions and their graphs	Ch. 2	all (1–6)	~ 3 weeks
Linear and quadratic functions	Ch. 3	1–4	~ 1.5 weeks
Polynomial and rational functions	Ch. 4	all (1–6)	~ 3 weeks
Exponential and logarithmic functions	Ch. 5	1–6 (7, 8 optional)	~ 3 weeks
Systems of equations an inequalities	Ch. 11	1, 2, 4, 6	~ 2 weeks

Topics from Appendix A *Review* will be reviewed as needed while covering the sections listed above.

Assessment

The Semester score for the course will be calculated by using the weights (%) indicated below:

WEIGHT (%)			
75%	Semester average	Tests	_____ %
		Assignments	_____ %
		_____	_____ %
25%	Final exam grade		

The Semester letter grade in the course will be assigned according to the scale below:

SEMESTER GRADE	SEMESTER SCORE
90–100	A
80–89	B
70–79	C
60–69	D
0–59	F

Notes:

1. The student is expected to attend regularly and punctually. A student with excessive absences (25% of scheduled classes, either excused or unexcused) will be given an appropriate grade of F.

2. The final exam will be a departmental exam.
3. In cases of an **excused** absence, the instructor reserves the right to reweight the final exam in lieu of a make-up test.
4. In the case where a student's score on his final exam indicates **exceptional achievement** above and beyond that indicated by the semester average, the instructor reserves the right to reweight the value of the final exam in computing the semester grade.

Please read the Department's Attendance Policy.

Instructor's office hours can be found on the MSU web site at
http://www.faculty.mcneese.edu/
Click on individual instructor to view their web page. Or navigate from MSU Home Page; select *Faculty & Staff*, select *Faculty Web Server*.

Students should visit the MSU web page at
http://www.mcneese.edu/policy/diversity.htm
for information about diversity awareness and sexual harassment policies and procedures, as well as the Americans with Disabilities Act.

Students should also visit the MSU web page at
http://www.mcneese.edu/integrity
for information on the Academic Integrity Policy.

ANY STUDENT WITH A DISABILITY IS ENCOURAGED TO CONTACT THE OFFICE OF SERVICES FOR STUDENTS WITH DISABILITIES IN DREW HALL, ROOM 200, VOICE (337) 475-5916, HEARING IMPAIRED (337) 475-5722. IT IS EACH STUDENT'S RESPONSIBILITY TO REGISTER WITH THE OFFICE OF SERVICES FOR STUDENTS WITH DISABILITIES WHEN REQUESTING A REASONABLE ACCOMMODATION.

One week of summer school is equivalent to 2 ½ weeks of Fall or Spring classes

DMCS
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